

Listing of Claims:

Claim 1 (canceled)

2. (new) A surgical device for assessing the relative strength and degree of anisotropy of a tissue sample comprising:

a handheld body having a top portion and a bottom portion;

an upper chamber in the top portion of the body;

a lower cavity in the bottom portion of the body for housing a pressure chamber in fluid communication with a pressure source, the pressure chamber having a top portion having an opening for releasing pressure;

an orifice formed in the body between the upper chamber and low cavity providing fluid communication between the upper chamber and lower cavity and positioned such that the tissue sample can be secured within the lower cavity between the opening of the pressure chamber and orifice, such that fluid from the pressure source can pass through the opening in the pressure chamber and inflate the tissue forming a dome of tissue extending through the orifice having a height axis substantially perpendicular to the tissue sample secured within the cavity, wherein the height of the dome of tissue along the height axis is generally proportional to the strength of the tissue sample;

a source of illumination projecting collimated light rays in the direction of the dome of tissue illuminating the dome of tissue and creating a Moiré fringe pattern on the illuminated dome of tissue, wherein the Moiré fringe pattern may be viewed through the upper chamber and used to determine the degree of anisotropy of the tissue sample.